

MSDS Code: 0537416

**CU-0226 S 8 X 14**  
**Copper Catalyst**

Revision date: 07/09/1999

Date Printed: 07/23/2001

**NFPA Classification:****Health:** 1  
**Flammability:** 0  
**Instability:** 1  
**Special Hazards:****HMIS Classification:****Health:** 1 \*  
**Flammability:** 0  
**Reactivity:** 1  
**Personal Protection:** B

\* Indicates possible chronic health effects.

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Common Name:** Copper Oxide And Aluminum Oxide Catalyst**Chemical Name:** Chemical Mixture**Product Use:** Industrial catalyst.**Supplier:** ENGELHARD CORPORATION  
CHEMICAL CATALYSTS, PROCESS TECHNOLOGIES GROUP  
120 PINE STREET  
ELYRIA, OH 44035  
1-800-321-2747For Chemical Emergency Call CHEMTREC (24 hours):  
1-800-424-9300 (US, Canada, Puerto Rico, Virgin Islands)  
1-703-527-3887 (Outside Above Area)**2. COMPOSITION/INFORMATION ON INGREDIENTS**

<b><u>Ingredient</u></b>	<b><u>Weight in Product (%)</u></b>	<b><u>Notes</u></b>
Alumina 1344-28-1	86	None.
Copper Oxide 1317-38-0	13	None.

**Other Information:** NOTE: The percentage by weight values reported for this product represent approximate formulation values.

### 3. HAZARDS IDENTIFICATION

**Emergency Overview:**

**Color:** Green Black  
**Form:** Spheres  
**Odor:** Odorless  
**Flash Point, °C:** Not Applicable

**Most Important Hazards:** Overexposure may cause liver and kidney damage, and blood disorders. Prolonged or repeated exposure to dust may cause pulmonary problems. Irritating to eyes, respiratory system and skin. Harmful if swallowed. May cause pain, nausea, vomiting and diarrhea.

**Potential Health Effects:**

**Inhalation:** Exposure to dust particles generated from this material may cause irritation of the respiratory tract. May result in symptoms similar to those of the common cold. Prolonged or excessive exposure may result in Copper poisoning.

**Ingestion:** Harmful if swallowed. May cause pain, nausea, vomiting and diarrhea. Copper poisoning can result in hemolytic anemia and kidney, liver and spleen damage.

**Skin Contact:** Causes skin irritation. May cause a rash and itching of the skin.

**Eye Contact:** Causes eye irritation.

**Carcinogenicity:**

<u>Ingredient</u>	<u>Weight in Product (%)</u>	<b>NTP (Y/N)</b>	<b>IARC (See Notes)</b>	<b>OSHA (Y/N)</b>	<b>ACGIH (See Notes)</b>
Alumina 1344-28-1	86	N	N	N	A4
Copper Oxide 1317-38-0	13	N	N	N	N

Notes:  
IARC: Y1=Carcinogenic to humans; Y2A=Probably carcinogenic to humans; Y2B=Possibly carcinogenic to humans; N3=Not classifiable as to its carcinogenicity; N=Not studied or probably not carcinogenic.  
ACGIH: A1=Confirmed human carcinogen; A2=Suspected human carcinogen; A3=Confirmed animal carcinogen; A4=Not classifiable as a human carcinogen; A5=Not suspected as a human carcinogen; N=Not studied.

**Chronic Health Hazards:** May cause liver and kidney damage. May affect the blood and blood system. Prolonged or repeated exposure to dust may cause pulmonary problems. Refer to Potential Health Effects.

**Aggravated Medical Conditions:** Dermal ailments. Pulmonary disorders. Kidney disorders. Liver disorders. Individuals with Wilson's Disease are at increased risk of Copper poisoning.

#### 4. FIRST AID MEASURES

- Inhalation:** Move person to fresh air. Aid in breathing, if necessary, and get immediate medical attention.
- Ingestion:** If person is conscious and able to swallow, give large amounts of water to dilute. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.
- Skin Contact:** Wash with soap and water. Get medical attention if irritation persists.
- Eye Contact:** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

#### 5. FIRE FIGHTING MEASURES

- Flash Point, °C:** Not Applicable  
**Autoignition Temperature, °C:** Not Applicable  
**Lower Explosive Limit, %:** Not Applicable  
**Upper Explosive Limit, %:** Not Applicable
- Extinguishing Media:** Water. Carbon dioxide. Foam.
- Fire Fighting Procedures:** Positive pressure, self-contained breathing apparatus. Wear full protective clothing.
- Unusual Fire and Explosion Hazards:** Not a fire or explosion hazard.

#### 6. ACCIDENTAL RELEASE MEASURES

- Spill Procedures:** Contain spillage. Scoop up or vacuum into a container for reclamation or disposal. Avoid dusting.

#### 7. HANDLING AND STORAGE

Wash thoroughly after handling.  
Store in a cool, dry location away from incompatible materials.  
Keep container closed.  
Avoid generating or breathing dust.  
Avoid contact with eyes, skin and clothing.  
Use with adequate ventilation.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engelhard**  
**Material Safety Data Sheet****MSDS code:**  
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<u>Ingredient</u>	<u>Weight in Product (%)</u>	<u>OSHA PEL:</u>	<u>ACGIH TLV:</u>
Alumina 1344-28-1	86	10 mg/m3 (Total dust) 5 mg/m3 (Respirable dust)	10 mg/m3 (as Al, dust)
Copper Oxide 1317-38-0	13	1 mg/m3 (as Cu)	1 mg/m3 (as Cu)

Unless otherwise noted, all values are reported as 8-hour Time-Weighted Averages (TWAs) and total dust (particulates only). All ACGIH TLVs refer to the 2000 standards. Unless otherwise noted, all OSHA PELs refer to 29 CFR Part 1910 Air Contaminants: Final Rule, January 19, 1989.

**Personal  
Protective  
Equipment:**

Safety glasses with side shields. Wear suitable gloves.  
Wear clean, body-covering clothing.

**Respiratory  
Protection:**

Use approved respiratory protection if exposure limits are exceeded, or overexposure is likely. If respiratory protection is used, follow all requirements for respiratory programs set forth in OSHA regulations (29 CFR 1910.139).

**Ventilation:**

General ventilation. Local exhaust ventilation is recommended to control exposures to within applicable limits.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form:** Spheres  
**Color:** Green Black  
**Odor:** Odorless

**Bulk Density:** 0.8g/cc  
**Solubility (in water):** Insoluble

**10. STABILITY AND REACTIVITY**

**Stability Data:** Stable

**Conditions/Hazards to Avoid:** None anticipated

**Incompatibility (Materials to Avoid):** Strong oxidizing agents.

**Hazardous Reactions:** Contact with water may produce significant amounts of heat.

**Hazardous Decomposition Products:** Toxic fumes.

**Polymerization:** None anticipated.

**Polymerization - Avoid:** None anticipated.

**11. TOXICOLOGICAL INFORMATION**

**Information on Product:**

No data available.

**Information on Components:**

<u>Ingredient</u>	<u>Weight in Product (%)</u>	<u>Acute Toxicity - Oral</u>	<u>Acute Toxicity - Inhalation</u>	<u>Acute Toxicity - Dermal</u>	<u>Acute Toxicity - Other</u>
Alumina 1344-28-1	86	Not Available	Not Available	Not Available	Not Available
Copper Oxide 1317-38-0	13	Not Available	Not Available	Not Available	Not Available

**12. ECOLOGICAL INFORMATION**

**Information on Product:**

**Environmental Fate:**

No data available.

**Ecotoxicological Information:**

No data available.

**13. DISPOSAL CONSIDERATIONS**

**US EPA Waste Number:** Not Regulated

**Disposal of Waste Method:** Local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary).

**14. TRANSPORT INFORMATION**

**International Transport Regulations:**

**UN/PIN Number:** Not Regulated

**US Transportation Regulations:**

**DOT Classification:** Not Regulated

**Canadian Transportation of Dangerous Goods (TDG):**

**TDG Classification:** Not Regulated

**15. REGULATORY INFORMATION**

**International Inventories:**

**United States:** This product or its ingredients are listed on or compliant with the TSCA Inventory.

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**Canada:** This product or its ingredients are listed on or compliant with the DSL.  
**Europe:** This product or its ingredients are listed on or compliant with EINECS.  
**Japan:** This product or its ingredients are listed on or compliant with MITI.  
**Australia:** This product or its ingredients are listed on or compliant with AICS.  
**Korea:** This product or its ingredients are listed on or compliant with the ECL.

**US Federal Regulations:**

<u>Ingredient</u>	<u>Weight in Product (%)</u>	<u>Subject to SARA 313 Reporting</u>
Alumina 1344-28-1	86	No
Copper Oxide 1317-38-0	13	Yes

**SARA 311/ 312 Hazard Categories:**

Acute Health Hazard                      Chronic Health Hazard

**CAA 602 Ozone Depleting Substances (ODS):**

This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clean Air Act Amendments 1990 and 40 CFR Part 82.

**US State Regulations:**

**VOC Content (CARB):** Not Determined

**Canadian Regulations:**

**WHMIS Classification:**

Class D Division 2 Subdivision B

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

**16. OTHER INFORMATION**

**Revision number:** 6

**Section(s) Revised in this Version:** All Sections: Reissue from a new MSDS authoring system. No content changes; however, some differences in wording may exist.

**Prepared By:** Engelhard Corporate Environmental Health & Safety Group

The information in this Material Safety Data Sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering,

operations, management and for persons working with or handling this product. The information presented in the MSDS is premised upon proper handling and anticipated uses, and is for the material without chemical additions/alterations. We believe this information to be reliable and up-to-date as of the date of publication, but make no warranty that it is. Additionally, if this Material Safety Data Sheet is more than three years old, please contact the supplier at the phone number listed in Section 1 to make certain that this sheet is current. Copyright Engelhard Corporation. License granted to make unlimited copies for internal use only. End of MSDS.....